

Section III: Current Status of the MMI Fund

As of the end of FY 2005, the MMI Fund had an estimated economic value of \$21.621 billion and a capital ratio of 6.02 percent. The economic value is slightly lower than that of the FY 2004 Review mainly due to the newly identified high claim rates on loans with down payment gift supports from non-relatives. On the other hand, due to the significant decrease in the volume of new books of business, the IIF decreased from last year, causing the capital ratio to be higher comparing with the figure in FY2004. In this section, a more detailed analysis of the MMI Fund's current status is presented. The analysis examines the Fund's end-of-FY 2005 situation and the projected future performance for FYs 2006 through 2012. This section includes a description of the basic components of the Fund's economic value and an explanation of the historical and estimated claim and prepayment rates that served as the foundation for estimating future performance.

A. Estimating the Current Economic Value of the MMI Fund

According to the NAHA, the economic value (or economic net worth) of the Fund is defined as the "cash available to the Fund, plus the net present value of all future cash inflows and outflows expected to result from the outstanding mortgages in the Fund". We base our estimate of this value on the level of capital resources as stated on the MMI Fund FY 2004 balance sheet plus the net total return from investments, the net income of the mortgage insurance policies, and the present value of expected future cash flows of the existing loan portfolio as estimated from our financial models.

The MMI Fund assets comprise cash, investments, properties and mortgages, and other assets and receivables. Capital resources are the total assets net of the liabilities of the Fund. Due to the accelerated schedule of the Actuarial Review, the actual amount of the capital resources as of the end of FY 2005 was not available at the time this Review was prepared. We had to project the end-of-FY 2005 capital resources based on the audited capital resources as of the beginning of the year with an estimate of the net cash income occurring during the year.

The present value of expected future cash flows is calculated by a financial model that uses the most current information available to estimate cash flows, including the present value of the expected cash inflows (upfront premiums, annual premiums and investment returns) and outflows (claim payments, premium refunds, administrative expenses, and distributive shares).³ The cash flows included in these calculations are those from the origination year to the year of

³ The administrative expense was discontinued since the FY 2002 Actuarial Review according to the federal credit reform requirement. The distributive share has been suspended since 1990. There is no indication that it would be resumed in the foreseeable future.

maturity, *e.g.*, 30 years from the first policy year for 30-year mortgages. The steps in calculating the current economic value and capital ratio of the MMI Fund are tabulated as Exhibit III-1.

1. Capital Resources

Capital resources are the net assets of the Fund that, if necessary, could be converted into cash to meet the Fund's obligations. It is computed by subtracting total liabilities from total assets. These assets consist of cash, investments, properties and mortgages, other assets and net of miscellaneous receivables and payables. Exhibit III-1 reports the estimate of MMI Fund's capital resources at the beginning of FY 2005 at \$22.823 billion.

The next step in estimating the capital resources as of the end of FY 2005 is to estimate the source and use of funds that are generated by the MMI Fund portfolio. Two sources of cash flows are estimated: (1) the net gain/loss from investment of the capital resources at the beginning of FY 2005; and (2) the net cash income from the mortgage insurance policies. The net total returns on the beginning capital resources was estimated to be \$509 million during FY 2005, assuming the capital resources realize a return equal to 2.23 percent.

Based on the econometric models and economic forecast, we estimated the cash flows that were generated by the FY 1976 to FY 2005 books of business during FY 2005. These cash flows and any interest earned from reinvestment become part of the total assets of the Fund. Exhibit III-2 shows the results of this analysis. The present value of the net cash flow received during FY 2005 was calculated as -\$167 million.

Exhibit III-1

Estimates of MMI Fund Economic Value as End of FY 2005 (\$ Millions)		
Item	End of FY 2004 ^a	End of FY 2005
Cash	\$ 4,874	
Investments	23,424	
Properties and Mortgages	1,462	
Other Assets and Receivables	460	
Total Assets	\$ 30,220	
Liabilities	7,397	
Total Capital Resources	\$ 22,823	
Net Gain from Investments		509 ^b
Net Insurance Income in FY 2005		(167)
Total Capital Resources		23,165
PV of Future Cash Flows		(1,544)
Economic Value	\$ 21,977^c	21,621
Unamortized Insurance-In-Force	397,285 ^c	358,871
Current Capital Ratio	5.53%^c	6.02%
Amortized Insurance-In-Force		332,393
Current Capital Ratio with Amortized Insurance-In-Force		6.50%

^a Source: Audited Financial Statements for FY 2004.

^b Assuming the total capital resources as of the end of FY 2004 earns an investment return equal to 2.23 percent during FY 2005.

^c From the FY 2004 Actuarial Review.

Exhibit III-2

Net Cash Flow During FY 2005 by Origination Fiscal Year and Mortgage Type ^a (\$ Millions)							
Fiscal Year	FRM 30	FRM 15	ARM	SR 30	SR 15	SR ARM	Total
1976	0						0
1977	0						0
1978	1						1
1979	1						1
1980	1						1
1981	0						0
1982	0						0
1983	1						1
1984	0						0
1985	-1		0				-1
1986	-3		0	0			-3
1987	-4		0	-1		0	-5
1988	-3		0	0		0	-3
1989	-3		0	0		0	-4
1990	-5	0	0	0	0		-5
1991	-5	0	0	0	0	0	-6
1992	-7	0	-1	0	0	0	-8
1993	-8	0	-1	-3	0	0	-13
1994	-8	0	-1	-5	0	0	-14
1995	-10	0	-1	0	0	0	-11
1996	-28	0	-3	-2	0	0	-33
1997	-34	0	-7	-1	0	0	-43
1998	-65	0	-7	-2	0	-1	-75
1999	-112	-1	-4	3	-1	0	-114
2000	-146	-1	-11	0	0	0	-158
2001	-208	-1	-3	-8	0	-1	-221
2002	-253	-2	-14	-15	0	-7	-291
2003	-195	-3	-10	33	4	-8	-179
2004	-27	-1	1	28	3	-4	0
2005 ^b	634	9	94	208	21	48	1015
Total	-487	0	32	235	26	27	-167

^a See Section IV for description of loans included in each loan type category^b Based on forecasted volume and composition distribution between the second quarter of FY 2004 and the first quarter of FY 2005.

2. Present Value of Future Cash Flows

The present value of all future cash flows of the MMI Fund is also aggregated from separate estimates of the present value of each book of business and each major mortgage type. Exhibit III-3 shows the present values of future cash flows of major mortgage types from book years FY 1976 through FY 2005. These present values represent simulated cash flows during FY 2006 and future years. This exhibit is offered to facilitate comparison among books of business and mortgage types according to cash flows that have not yet been incurred as of the end of FY 2005. It is reported in Exhibit III-3 that the total present value of future cash flow is -\$1,544 million dollars. Note that this amount was -\$88 million before taking into account the different performance of loans with various gift sources. The higher expected claim loss of the gift bans represents a decrease \$1.46 billion dollar in the present value of future cash flows.

Exhibit III-3

Present Value of Future Cash Flows as the End of FY 2005 ^a							
by Origination Fiscal Year & Mortgage Type (\$ Millions)							
Fiscal Year	FRM 30	FRM 15	ARM	SR 30	SR 15	SR ARM	Total
1976	0						0
1977	0						0
1978	1						1
1979	2						2
1980	1						1
1981	1						1
1982	0						0
1983	2						2
1984	-1						-1
1985	-2		0				-2
1986	-5		0	0			-5
1987	-6		0	-1		0	-7
1988	-4		0	0		0	-5
1989	-5		0	0		0	-6
1990	-8		0	0			-8
1991	-9	0	0	0	0	0	-9
1992	-10	0	-2	-1	0	0	-13
1993	-13	0	-2	-5	0	0	-20
1994	-15	0	-3	-7	0	-1	-26
1995	-15	0	-2	0	0	0	-17
1996	-36	0	-4	-2	0	0	-43
1997	-46	0	-8	-1	0	0	-55
1998	-82	0	-7	-7	0	-1	-97
1999	-155	-1	-6	-11	-1	-1	-175
2000	-177	-1	-19	-1	0	-1	-198
2001	-132	-1	-5	23	-1	0	-116
2002	-140	-3	-27	57	-2	-4	-120
2003	-141	-9	-41	425	0	-13	221
2004	-482	-9	-94	201	1	-23	-406
2005	-455	-6	-101	143	4	-29	-445
Total	-1,932	-32	-322	812	1	-73	-1,544

^aBased on forecasted volume and composition distribution during the first two quarters.

The present values of future books discounted to the end of each corresponding future fiscal year are tabulated in Exhibit III-4. Since the future books of business are assumed to have the same high portion of gift loans as the most recently insured loans, their expected present values are considerably lower than those estimated in FY 2004's Review. Note that the present values for FRM 30 product are negative in most years, indicating the current premium structure is not enough to pay for the future claim losses. These negative values are offset by the positive present values realized in other product types and still yield positive value for every future book of business.

Exhibit III-4

Present Value of Future Book^a by Origination Year^b & Mortgage Type (in \$ Million)							
Fiscal Year	FRM 30	FRM 15	ARM	SR 30	SR 15	SR ARM	Total
2006	-68	3	14	310	24	34	318
2007	61	3	24	341	25	44	499
2008	76	4	27	353	26	49	534
2009	23	5	26	352	28	53	486
2010	-31	5	32	378	31	60	476
2011	-47	6	38	420	36	70	523
2012	-62	6	44	470	40	79	578

^a. Present values are estimated as of the end of each corresponding fiscal years.

^b. Assume the current share of downpayment gifts by sources as in the FY 2005 book will remain the same for all future books of business.

3. Amortization of Current Books of Business

In order to calculate the MMI Fund's capital ratio, we need also to estimate the unamortized IIF, although it is instructive to consider the capital ratio based on amortized IIF, which is the basis the General Accounting Office (GAO) used when it estimated the capital ratio of the MMI Fund in the mid-1990's. At any given time, the dollar value that is actually at risk is the amortized IIF. Exhibit III-5 shows the volume of new mortgage originations for all types of mortgages, the unamortized IIF and the amortized IIF, as of the end of FY 2005.

As Exhibit III-5 indicates, the FY 2005 book of business constitutes approximately 17 percent of the Fund's total amortized IIF. Mortgage endorsements dropped dramatically after the FY 2003 book of business, which contributed the largest portion of mortgage endorsement volume, the three most recent books together represent over 60 percent of the total unamortized insurance in force of the current MMI Fund. The heavy concentration in these recent books of business implies that the claim rate of the MMI Fund could gradually increase during the coming years as these three books enter their peak claim years.

The decrease of mortgage endorsement volume in FY 2004 and FY 2005 reflects the rapid decline of HUD's market share. The FHA market shares continued to decrease from 12.18 percent in FY 2002 to an estimated 3.77 percent in FY 2005. This declining trend was incorporated in FHA's lower (than last year's) volume forecast for new books of business.

Exhibit III-5

Endorsements and Insurance-in-Force for All Mortgages As of End of FY 2005 (in \$ Millions)			
Book of Business ^a	Mortgage Endorsement	Unamortized Insurance in Force ^b	Amortized Insurance in Force ^b
1976	5,569	178	9
1977	6,932	390	46
1978	9,627	562	113
1979	14,996	773	225
1980	14,216	426	160
1981	9,732	158	72
1982	6,894	26	14
1983	25,654	222	130
1984	15,696	490	322
1985	24,059	795	554
1986	57,728	3,028	2,030
1987	70,215	5,063	3,406
1988	37,425	2,180	1,583
1989	39,759	1,927	1,464
1990	47,123	2,166	1,686
1991	44,034	2,198	1,695
1992	44,922	3,314	2,496
1993	73,664	6,833	4,891
1994	79,537	9,304	6,841
1995	41,416	3,305	2,765
1996	61,563	5,563	4,704
1997	65,358	5,883	5,150
1998	88,453	11,360	10,083
1999	109,961	17,892	16,117
2000	86,734	9,436	8,807
2001	119,771	18,329	17,301
2002	128,768	33,581	31,883
2003	149,450	86,016	82,594
2004	92,647	71,387	69,661
2005	58,264 ^c	56,085	55,591
Total	1,630,167	358,871	332,393

^a End of year insurance-in-force^b Based on March 31, 2005 data extract and model projected performance of outstanding loans during the last two quarters of fiscal year 2005^c Estimated by FHA

Exhibit III-6 shows the estimated capital ratios of the Fund using amortized IIF while unamortized IIF is used elsewhere in this report. If amortized IIF were substituted for unamortized IIF, the Fund's estimated capital ratios for FY 2005 and FY 2012 are 6.50 percent and 7.31 percent, respectively. Following the definition by NAHA, we continue to use the unamortized IIF measure (as generally defined) in calculating the capital ratio elsewhere in this Review.

Exhibit III-6

Projected MMI Fund Performance for FYs 2005 to 2012^a (\$ Millions)						
Fiscal Year	Economic Value of the Fund	Capital Ratio (%)	Volume of New Endorsements	Amortized Insurance in Force	Economic Value of New Book of Business	Interest Return on Fund Balances
2005	21,621	6.50	58,264	332,393	570	
2006	22,702	6.69	54,664	339,595	318	764
2007	24,130	6.98	54,965	345,832	499	929
2008	25,729	7.19	57,065	357,678	534	1,065
2009	27,434	7.34	60,973	373,955	486	1,219
2010	29,286	7.37	69,231	397,441	476	1,377
2011	31,361	7.34	79,308	427,104	523	1,552
2012	33,680	7.31	88,898	460,712	578	1,741

^a All values are as of the end of each fiscal year.